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comprising:

Examiner Philip B. Tran Group Art Unit: 2155

41. (Currently Amended)

A communications system for communicating between an information provider and at least one client computer on a computer network providing bi-directional electronic communications between users at client computers on a computer network and a global communications network, the electronic communications including both the reception and transmission of data, the system

a satellite receiver operating to receive download data from the information provider the global communications network;

a plurality of client computers on a computer network each of said client computers including first network hardware and first network software for communidation with the information provider; and

a server computer, including second network hardware and second network software for communications with the computer network, in electronic communication with said satellite receiver and in electronic communication with the computer network, said server computer having satellite receiver interface software installed thereon operating to receive the download data from said satellite receiver and operating to route the download data to said plurality of client computers for use by the application software on each of said client computers, via the computer network, in order to provide the advantages of satellite communications for high volume download data packets; and said server computer network being programmed to route the

download data to client computers on the computer network irrespective of
the client computer's operating systems such that said server computer does
not require the same operating system for each client computer of the
plurality of client computers; and

a communications device, said communications device being in electronic

communications with said server computer, upload data being provided to

said-communications device via said server computer, and said upload data

being sent to the global communications network via said communications

device.

42. (Previously added):

The communications system as defined in claim 41

wherein said computer hetwork is a local area network.

43. (Previously added):

The communications system as defined in claim 41

wherein said computer network is a wide area network.

44. (Currently amended): The communications system as defined in claim 42 <u>further</u> comprising a storage <u>medium</u> wherein said server <u>computer's routing of the download</u> data includes storing the download data on said storage <u>medium</u> computer is programmed to route the download data to said plurality of client computers on the

server computer does not require the same operating system for each client computer

local area network irrespective of the client computers' operating systems such that said

of the plurality of client computers.



45. (Currently amended):

The communications system as defined in claim 44

wherein said storage medium is included in said server computer of claim 42 wherein the upload data is sent at a substantially lower rate than the download data is being received.

- 46. (Currently amended). The communications as defined in claim 44 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one of said plurality of client computers system of claim 42 wherein the bidirectional electronic communications is asymmetric.
- 47. (Currently amended): The communications system of claim <u>46 wherein said</u>

  intermediate storage medium includes a cache <u>42 wherein said communications device</u>

  is capable of receiving additional download data.
- 48. (Currently amended): The communications system of claim 42 wherein <u>said</u>

  <u>server computer runs a server operating system</u> the communications device comprises a <u>land-line communications device</u>.
- 49. (Currently amended): The communications system of claim 42 wherein said server computer routes the download data using a standard local area network protocol the communications device comprises a wireless communications device.
- 50. (Currently amended): The communications system as defined in claim 42

  wherein said server computer operates to route the download data to a plurality of local

  area networks further comprising a storage medium wherein said server computer's

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routing of the download data includes storing the download data on said storage medium.

51. (Currently amended): A server computer for communicating between a global communications network and at least one client computer on a computer network, the server computer comprising:

network hardware for connecting said server computer to the computer network; communications hardware for enabling electronic communications with a satellite receiver operating to receive download data which is then sent to a client computer by the server computer via a computer network in order to provide the advantages of satellite communications for high volume download data packets;

a processor; and

a computer readable medium containing:

network instructions for communications between said server computer and the computer network;

satellite receiver interface software instructions for communications between said server domputer and the satellite receiver;

router instructions, said router instructions operating to receive download data from the global communications network and operating to route the download data to at least one client computer on the computer network irrespective of the client computer's operating systems such that said server computer does not



require the same operating system for each client computer of the plurality of client computers; and

wherein said network instructions, said satellite instructions and said router instructions are executable by said processor. The communications system as defined in claim 50 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said plurality of client computers.

- 52. (Currently amended): The server computer as defined in claim 51 wherein said computer network is a local area network communications system as defined in claim 51 wherein said intermediate storage medium includes a cache.
- 53. (Currently amended): The server computer as defined in claim 51 wherein said computer network is a wide area network communications system as defined in claim 42 wherein said server computer runs a server operating system.
- 54. (Currently amended): The <u>server as defined in claim 52 further comprising a</u> storage medium wherein said server computer's routing of the download data includes storing the download data on the storage medium communications system as defined in claim 42 wherein said server computer routes the download data using a standard local area network protocol.
- 55. (Currently amended): The server computer as defined in claim 54 wherein said storage medium is included in said server computer A computer readable medium

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a plurality of client computers on a computer network and a global communications network, the electronic communications including both the reception and transmission of data, wherein the instructions comprise executable instructions for implementing a method comprising:

receiving download data from a satellite receiver in electronic communication with a server computer;

receiving upload data from said plurality of client computers via the computer network;

and

transmitting the upload data via a communications device to the information provider.

The <u>server computer as defined in claim 54 wherein said</u> storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one client computer computer readable medium as defined in claim 55 wherein said computer network is a local area network.

57. (Currently amended): The <u>server computer as defined in claim 56 wherein said</u>

intermediate storage medium includes a cache computer readable medium as defined in claim 55 wherein said computer network is a wide area network.

58. (Currently amended): The <u>server computer as defined in claim 52 wherein said</u>

<u>server computer runs a server operating system computer readable medium as defined</u>

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said plurality of client computers on the local area network irrespective of the client computers' operating systems such that said server computer does not require the same operating system for each client computer of the plurality of client computers.

59. (Currently amended): The <u>server computer as define din claim 52 wherein said</u>

<u>server computer routes the download data using a standard local area network protocol</u>

<u>computer readable medium as defined in claim 55 wherein the communications device</u>

<u>comprises a land-line communications device</u>.

The <u>server computer as defined in claim 52 wherein said</u>

<u>server computer operates to route the download data to a plurality of local area</u>

<u>networks computer readable medium as defined in claim 59 wherein said land line</u>

<u>communications device uses an ISDN connection</u>.

A method for providing access to a global communications

network for at least one client computer on a computer network, which comprises:

with a server computer, said server computer having satellite receiver

interface software installed thereon and said satellite receiver operating to

receive download data; and

computer network, in order to provide the advantages of satellite

communications for high volume download data packets, irrespective of the

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client computer's operating systems such that said server computer does not require the same operating system for each client computer of the plurality of client computers. The computer readable medium as defined in claim 59 wherein said land-line communications device uses a T1-connection.

62. (Currently amended): The method as defined in claim 61 wherein said computer network is a local area network computer-readable medium as defined in claim 59 wherein said land-line communications device comprises a modem.

The method as defined in claim 61 wherein said computer 63. (Currently amended): network is a wide area network computer readable medium as defined in claim 59 wherein said land-line communications device uses a frame-relay network.

64. (Currently amended): The method as defined in claim 61 wherein the server computer further comprises a storage medium and wherein said server computer's routing of the download data includes storing the download data on said storage medium computer-readable medium as defined in claim 59 wherein said land-line communications device uses ATM.

65. (Currently amended): The method as defined in claim 64 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one client computer computer readable medium as defined in claim 55 wherein the communications device comprises a wireless communications device.



66. (Currently amended):

The method as defined in claim 65 wherein said

intermediate storage medium includes a cache computer-readable medium as defined in claim 65 wherein the wireless communications device uses a satellite link.

67. (Currently amended):

The method as defined in claim 61 wherein said server

computer runs a server operating system computer-readable medium as defined in

claim 55 wherein said computer-readable medium is included in the server computer.

68. (Currently amended):

The method as defined in claim 61 wherein said server

computer routes the download data using a standard local area network protocol

computer-readable medium as defined in claim 55 wherein said communications device

comprises a satellite-based communications device.

69. (Currently amended):

The method as defined in claim 61 wherein said server

computer operates to route the download data to a plurality of computer networks

computer-readable mediurh as defined in claim 55 wherein the server computer further

comprises a storage medium and wherein said server computer's routing of the

download data includes stdring the download data on said storage medium.

70. (Currently amended):

A computer readable medium containing instructions for

providing access to a global communications network for at least one client computer

on a computer network, wherein the instructions comprise executable instructions for

implementing a method comprising:

receiving download data from a satellite receiver in electronic communication

with a server computer, said server computer having satellite receiver

interface software installed thereon, and said satellite receiver operating to receive download data; and

routing said received download data to at least one client computer via the computer network, in order to provide the advantages of satellite communications for high volume download data packets, irrespective of the client computer's operating system such that said server computer does not require the same operating system for each client computer. The computerreadable medium as defined in claim 69 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said plurality of client computers.

- 71. (Currently amended): The computer-readable medium as defined in claim 70 wherein said computer network is a local area network intermediate storage medium includes a cache.
- 72. (Currently amended): The computer-readable medium as defined in claim 70 wherein said computer network is a wide area network 55 wherein said server computer runs a server operating system.
- 73. (Currently amended): The computer-readable medium as defined in claim 70 wherein the server computer further comprises a storage medium and wherein said server computer's routing of the download data includes storing the download data on

said storage medium <del>56 wherein said server computer routes the download data using a</del> standard local area network protocol.

74. (Currently amended): The computer-readable medium as defined in claim 73 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one client computer 55 wherein said server computer operates to route the download data to a plurality of computer networks.

75. (Currently amended): The computer-readable medium as defined in claim 74 wherein said intermediate storage medium includes a cache A method for providing bidirectional electronic communications between users at a plurality of client computers on a computer network and an information provider, the electronic communications including both the reception and transmission of data, which comprises: receiving download data from a satellite receiver in electronic communication with a server computer;

routing the download data to the plurality of client computers via the computer network; receiving upload data from said plurality of client computers via the computer network; and

transmitting the upload data via a communications device to the information provider.

76. (Currently amended): The computer-readable medium as defined in claim 70 wherein said server computer runs a server operating system method as defined in claim 75 wherein said computer network is a local area network.

77. (Currently amended):

The computer-readable medium as defined in claim 71

wherein said server computer routes the download data using a standard local area

network protocol method as defined in claim 75 wherein said computer network is a

wide area network.

78. (Currently amended):

The computer-readable medium as defined in claim 70

wherein said server computer operates to route the download data to a plurality of

computer networks method as defined in claim 75 wherein said server computer is

programmed to route the download data to said plurality of client computers on the

computer network irrespective of the client computers' operating systems such that said

server computer does not require the same operating system for each client computer

of the plurality of client computers.

79. (Currently amended): A communications system for communicating between an

information provider and a client computer, the system comprising:

a satellite receiver operating to receive download data from the information

provider;

a client computer:

a server computer in electronic communication with said satellite receiver and in

electronic communication with said client computer, said server computer

having satellite receiver interface software installed thereon operating to

receive the download data from said satellite receiver and operating to route

the download data to said client computer via a computer network in order to

AMENDMENT AND RESPONSE

provide the advantages of satellite communications for high volume download data packets The method as defined in claim 75 wherein the server computer further comprises a storage medium and wherein said server computer's routing of the download data includes storing the download data on said storage medium.

80. (Currently amended): The communications system as defined in claim 79 further comprising a storage medium wherein said server computer's routing of the download data includes storing the download data on said storage medium method as defined in claim 79 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said-plurality of client computers.

- 81. (Currently amended) The communications system as defined in claim 80 wherein said storage medium is included in said server computer method as defined in claim 80 wherein said intermediate storage medium includes a cache.
- 82. (Currently amended): The communications system as defined in claim 80 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said client computer method as defined in claim 75 wherein said server computer runs a server operating system.
- 83. (Currently amended): The communications system as defined in claim 82 wherein said intermediate storage medium includes a cache method as defined in claim



76 wherein said server computer routes the download data using a standard local area network protocol.

84. (Currently amended): The communications system as defined in claim 79 wherein said server computer runs a server operating system method as defined in claim 75 wherein said server computer operates to route the download data to a plurality of computer networks.

wherein said server computer routes the download data using a standard local area network protocol for providing bi-directional electronic communications between at least one client computer on a computer network and a global communications network, the electronic communications including both the reception and transmission of data, the system comprising:

a satellite receiver operating to receive download data from the global communications

a plurality of client computers on a computer network;

a server computer in electronic communication with said satellite receiver and in electronic communication with the computer network, said server computer operating to receive the download data from said satellite receiver and operating to route the download data to at least one computer of said plurality of client computers via the computer network; and

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a communications device, sald communications device being in electronic communications with said server computer, upload data being provided to said communications device via said server computer, and said upload data being sent to the global communications network via said communications device.

86. (Currently amended): A server computer for communicating between a global communications network/and a client computer, the server computer comprising:

first communications hardware for enabling electronic communications with the client computer, via a computer network in order to provide the advantages of satellite communications for high volume download data packets;

second communications hardware for enabling electronic communications between the server computer and a satellite receiver;

a processor; and

a computer readable medium containing:

communication instructions for communications between said server computer and the client computer:

satellite instructions, in the form of satellite receiver software, for communications between said server computer and the satellite receiver; routing instructions operating to receive download data from the global communications network and operating to route the download data to the client computer; and

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wherein said communication instructions, said satellite instructions and said

routing instructions are executable by said processor. The communications

system as defined in claim 85 wherein said computer network is a local area network.

87. (Currently amended): The <u>server computer as defined in claim 86 further</u>

comprising a storage medium wherein said server computer's routing of the download

data includes storing the download data on said storage medium communications

system as defined in claim 85 wherein said computer network is a wide area network.

88. (Currently amended): The <u>server computer communications system</u> as defined in claim <u>87</u> 86 further comprising a storage medium wherein said <u>storage medium is</u> included in said server computer <u>server computer's routing of the download data</u> includes storing the download data on said storage medium.

89. (Currently amended): The server computer as defined in claim 87 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said client computer communications system as defined in claim 88 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one of said plurality of client computers.

90. (Currently amended): The <u>server computer</u> <del>communications system</del> as defined in claim 89 wherein said intermediate storage medium includes a cache.

91. (Currently amended): The <u>server computer as defined in claim 86 wherein said</u>

<u>server computer runs a server operating system</u> <del>communications system as defined in claim 88 wherein said storage medium is included in said server computer</del>.

92. (Currently amended): The <u>server computer communications system</u> as defined in claim 86 wherein said server computer <u>routes the download data using a standard local</u>

<u>area network protocol runs a server operating system.</u>

93. (Currently amended): A method for providing access to a global communications network for a client computer, which comprises:

with a server computer, said server computer having satellite receiver

interface software installed thereon; and

network, in order to provide the advantages of satellite communications for high volume download data packets, irrespective of the client computer's operating system such that said server computer does not require the same operating system for each client computer The communications system as defined in claim 86 wherein said server computer routes the download data using a standard local area network protocol.

94. (Currently amended): The <u>method communications system</u> as defined in claim

93 wherein the server computer further comprises a storage medium and wherein said

server computer's routing of the download data includes storing the download data on

said storage medium 86 wherein said server computer operates to route the download data to a plurality of local area networks.

The method as defined in claim 94 wherein said storage medium is an intermediate storage medium and wherein the downlad data is stored on said intermediate storage medium prior to receipt of the download data by said client computer A computer readable medium containing instructions for providing bi-directional electronic communications between at least one computer on a computer network and a global communications network, the electronic communications including both the reception and transmission of data, wherein the instructions comprise executable instructions for implementing a method comprising:

receiving download data from a satellite receiver in electronic communication with a server computer;

routing the download data to at least one computer of a plurality of computers via the computer network;

transmitting the upload data via a communications device to the information provider.

96. (Currently amended): The method as defined in claim 95 wherein said intermediate storage medium includes a cache computer readable medium as defined in claim 95 wherein said computer network is a local area network.



97. (Currently amended): The <u>method computer-readable medium</u> as defined in claim <u>93 wherein said server computer runs a server operating system</u> <del>95 wherein said computer network is a wide area network</del>.

98. (Currently amended): The method as defined in claim 93 wherein said server computer routes the download data using a standard local area network protocol computer readable medium as defined in claim 95 wherein the server computer further comprises a storage medium and wherein said server computer's routing of the download data includes storing the download data on said storage medium.

99. (Currently amended): The A computer-readable medium containing instructions for providing access to a global communications network for a client computer, wherein the instructions comprise executable instructions for implementing a method comprising:

with a server computer, said server computer having satellite receiver

interface software installed thereon, and said satellite receiver operating to

receive download data; and

server computer does not require the same operating system for each client

computer, in order to provide the advantages of satellite communications for

high volume download data packets as defined in claim 98 wherein said

storage medium is an intermediate storage medium and wherein the

download data is stored on said intermediate storage medium prior to receipt of the download data by said at least one client computer.

100. (Currently amended): The computer-readable medium as defined in claim 99 wherein the server computer further comprises a storage medium and wherein said server computer's routing of the download data includes storing the download data on said storage medium said intermediate storage medium includes a cache.

101. (Currently amended): The computer-readable medium as defined in claim 100 wherein said storage medium is an intermediate storage medium and wherein the download data is stored on said intermediate storage medium prior to receipt of the download data by said client computer 95 wherein said server computer runs a server operating system.

102. (Currently amended): The computer-readable medium as defined in claim 101 wherein said intermediate storage medium includes a cache 96 wherein said server computer routes the download data using a standard local area network protocol.

103. (Currently amended): The computer-readable medium as defined in claim <u>99</u> wherein said server computer runs a server operating system <u>95</u> wherein said server computer operates to route the download data to a plurality of computer networks.

104. (Currently amended): The computer-readable medium as defined in claim 99 wherein said server computer routes the download data using a standard local area network protocol A method for providing bi-directional electronic communications between a client computer on a computer-network and an information provider, the

electronic communications including both the reception and transmission of data, which

<del>comprises:</del>

receiving download data from a satellite receiver in electronic communication with a

server computer;

routing the download data to a client computer via the computer network;

receiving upload data from said client computer via the computer network; and

transmitting the upload data via a communications device to the information provider.

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106. (Cancelled)

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